**SBS Technologies**

PMC-AD16-ETF

Features

- Standard single-width 32 bit PMC conforming to IEEE P1386.1

- PCI 2.1 compliant interface

- Card size: 149mm x 74mm

- 32 single-ended or 16 differential channels of isolated 16 bit A/D conversion

- Acquisition and conversion time up to 12µs without and up to 14.5µs with channel / gain change

- ESD protected input multiplexer

- Programmable gain amplifier: gain 1,2,5,10 or 1,2,4,8

- 16 bit A/D converter with internal S/H and reference

- Full-scale input range +/-10V at gain 1

- Interrupt capability at end-of-conversion

- Factory calibrated, calibration information stored in EEPROM
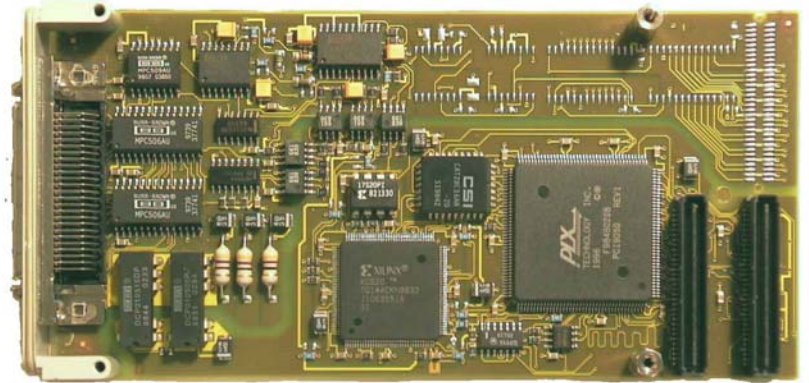
PMC-AD16 is a PCI Mezzanine Card (PMC) with galvanically isolated 32 multiplexed 16-bit ADC with on board DC/DC converters. The data acquisition and conversion time is mode-dependent: Maximum 12µs without channel / gain change, maximum 14.5µs with channel / gain change. The 32 ADC input channels can be software configured to operate in single-ended or differential mode with 16 input channels. The mixed mode is possible e.g. channel 1 to channel 8 selected as differential inputs and channel 9 to channel 16 and channel 25 to channel 32 as single-ended input channels.

The ADC multiplexer is overvoltage protected up to 70 Vpp. A programmable gain amplifier allows gains of 1, 2, 5, 10. The full-scale input voltage range is +/-10V. Additionally the PMC-AD16 provides a sequencer to control the analog inputs without wasting CPU time. Each channel can be independently enabled and configured by a sequencer instruction RAM. After the last instruction of a programmed sequence has completed the ADC data of all channels enabled for the sequence are stored in the data RAM. The repeat frequency of the sequencer can be programmed by using the sequence timer. The sequence timer is programmable from 100µs to 6.5535s in steps of 100µs. When the timer reaches the programmed value the sequencer starts a new sequence. A special function is the sequencer continuous mode. It is activated, if the sequence timer register is set to 0. In this mode the sequencer will start again with the first instruction of the sequence as soon as the last instruction of the previous sequence has been completed.

Each PMC-AD16 is factory calibrated. The calibration data is stored in an EEPROM unique to each PMC-AD16.
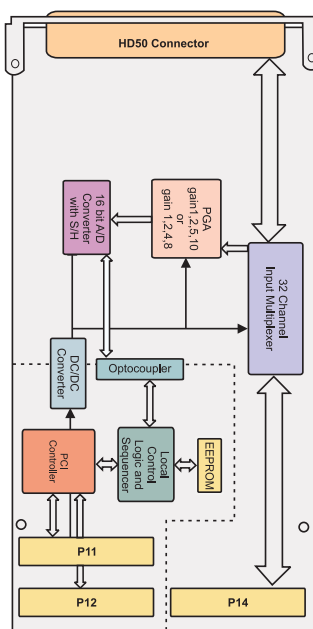
Specifications

Form Factor   Standard PCI Mezzanine Card

Environmental   Operating temperature: -40°C to +85°C
Humidity: 5% to 95% non-condensing

Storage: -40°C to +125°C

Order Information

PMC-AD16-ETF	32 Single-ended or 16 Differential Channels of Isolated 16 bit A/D, gain 1, 2, 5, 10, input range +/- 10V, front panel I/O *(End of Life December 31, 2005)*
PMC-AD16-ETB	32 Single-ended or 16 Differential Channels of Isolated 16 bit A/D, gain 1, 2, 5, 10, input range +/- 10V, I/O via P14
TCD842501	Software support for VxWorks operating system
TCD862501	Software support for Windows NT 4.0 operating system
TCD882501	Software support for Linux operating system

For additional contact information, please visit our web site at **www.sbs.com**

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